

In the Claims

Please amend the claims as follows:

1. (Original) A method for preparing a cell suspension suitable for application to a patient, which method comprises the steps of:

- (a) subjecting a tissue sample including cells suitable for grafting to a patient, to at least a physical and or chemical dissociating means capable of dissociating cellular stratum in the tissue sample;
- (b) removing the tissue sample from the dissociating means used in step (a) and harvesting in the presence of a nutrient solution cells from the tissue sample, cells suitable for grafting on to a patient wherein the nutrient solution is (i) free of xenogenic serum, (ii) capable of maintaining the viability of the cells until applied to a patient and (iii) is suitable for direct application to a region on a patient undergoing tissue grafting; and
- (c) filtering the cellular suspension produced according to step (b) to remove large cellular conglomerates.

2. (Original) A method according to claim 1 wherein the enzyme suitable for dissociating cohesive pieces of tissue stratum in the sample is trypsin or a trypsin-like enzyme.

3. (Original) A method according to claim 2 wherein the enzyme is selected from the group consisting of trypsin, trypsin-EDTA, dispase, collagenase, thermolysin, pronase, hyaluronidase, pancreatin, elastase and papain.

4. (Original) A method according to claim 1 wherein the nutrient solution is Hartmann's solution.

5. (Currently Amended) A cell suspension produced according to ~~the method of claim 1 a~~ method comprising the steps of:

- (a) subjecting a tissue sample including cells suitable for grafting to a patient, to at least a physical and or chemical dissociating means capable of dissociating cellular stratum in the tissue sample;
- (b) removing the tissue sample from the dissociating means used in step (a) and harvesting in the presence of a nutrient solution cells from the tissue sample, cells suitable for grafting on to a patient wherein the nutrient solution is (i) free of xenogenic serum, (ii) capable of maintaining the viability of the cells until applied to a patient and (iii) is suitable for direct application to a region on a patient undergoing tissue grafting; and
- (c) filtering the cellular suspension produced according to step (b) to remove large cellular conglomerates.

6. (Original) A cell suspension according to claim 5 prepared from autologous cells.

7. (Original) A method of treating a patient in need of graft surgery, said method comprising the steps of:

- (a) preparing a cell suspension according to the method of claim; and
- (b) administering the suspension directly to a region on the patient that requires a cell graft in a manner that facilitates spreading of the cell suspension in a relatively even distribution over the graft region.

8. (Original) Use of a cellular suspension suitable for grafts, which suspension is prepared according to the following steps:

- (a) subjecting a tissue sample including cells suitable for grafting to a patient, to an enzyme suitable for dissociating cohesive pieces of the tissue stratum in the sample;
- (b) removing the sample from the enzyme solution used in step (a) and harvesting in the presence of a nutrient solution cells from the tissue sample, which cells are suitable for grafting on to a patient wherein the nutrient solution is (i) free of xenogenic serum, (ii) capable of maintaining the viability of the cells until applied to a patient and (iii) is suitable for direct application to a region on a patient undergoing tissue grafting; and
- (c) filtering the cellular suspension produced according to step (b) to remove large cellular conglomerates;

for the preparation of therapeutic preparation suitable for the treatment of tissue disorders requiring grafting.

9. (Original) The use according to claim 8 wherein the nutrient solution is Hartmann's solution.

10. (Original) An apparatus for developing a tissue regeneration solution, said apparatus comprising:

- (a) a heating means suitable for heating an enzyme solution to a required temperature and which is capable of maintaining that solution at the desired temperature for a suitable amount of time; and
- (b) a filter recess comprising a filter means capable of separating large cellular congregates from a cellular suspension.

11. (Original) The apparatus according to claim 10, which additionally comprises a reservoir capable of holding a tissue sample and a nutrient solution.

12. (Original) The apparatus according to claim 10, which includes one or more fluid containment wells for storage of fluids.

13. (Original) An apparatus for developing a tissue regeneration solution, comprising a first and second member wherein:

- (i) the first member includes:
 - (a) a heating means suitable for heating an enzyme solution to a required temperature and which is capable of maintaining that solution at the desired temperature for a suitable amount of time;

(b) a filter recess comprising a filter means capable of separating large cellular congregates from a cellular suspension;

(c) at least a fluid containment well for storage of nutrient solution;

(ii) the second member forms a reservoir capable of withholding a tissue sample and nutrient solution in fluid containment; and

wherein the first member provides a seat upon which the second member may be placed during manipulation of the tissue.

14. (New) A cell suspension according to claim 5 wherein the physical and or chemical dissociating means comprises a chemical dissociating means comprising an enzyme solution.

15. (New) A cell suspension according to claim 14 wherein the enzyme solution comprises an enzyme selected from the group consisting of trypsin, trypsin-EDTA, dispase, collagenase, thermolysin, pronase, hyaluronidase, pancreatin, elastase and papain.

16. (New) A cell suspension according to claim 15 wherein the enzyme solution comprises between about 5% and about 0.1% trypsin per volume of solution.

17. (New) A cell suspension according to claim 16 wherein the enzyme solution comprises between about 2.5% and about 0.25% trypsin per volume of solution.

18. (New) A cell suspension according to claim 14 wherein the enzyme solution is heated.

19. (New) A cell suspension according to claim 18 wherein the enzyme solution is heated to a temperature between about 30 degrees Celsius and about 37 degrees Celsius.

20. (New) A cell suspension according to claim 14 wherein the enzyme solution is calcium and magnesium free.
21. (New) A cell suspension according to claim 20 wherein the enzyme solution is provided in a calcium and magnesium ion free phosphate buffered saline.
22. (New) A cell suspension according to claim 5 wherein the tissue sample comprises a tissue biopsy derived from skin.
23. (New) A cell suspension according to claim 5 wherein the nutrient solution comprises a salt solution.
24. (New) A cell suspension according to claim 5 wherein the nutrient solution comprises physiological saline.
25. (New) A cell suspension according to claim 5 wherein the filtering step comprises the use of a filter size between about 50 μ m and about 200 μ m.
26. (New) A cell suspension according to claim 25 wherein the filtering step comprises the use of a filter size between about 75 μ m and about 150 μ m.
27. (New) A cell suspension produced according to a method comprising the steps of:
 - (a) subjecting a tissue sample including cells suitable for grafting to a patient, to a heated enzyme solution capable of dissociating cellular stratum in the tissue sample, the heated enzyme solution being calcium and magnesium free and comprising an enzyme selected from the group consisting of trypsin, trypsin-EDTA, dispase, collagenase, thermolysin, pronase, hyaluronidase, pancreatin, elastase and papain;

(b) removing the tissue sample from the dissociating means used in step (a) and harvesting in the presence of a nutrient solution cells from the tissue sample, cells suitable for grafting on to a patient wherein the nutrient solution comprises physiological saline and is (i) free of xenogenic serum, (ii) capable of maintaining the viability of the cells until applied to a patient and (iii) is suitable for direct application to a region on a patient undergoing tissue grafting; and

(c) filtering the cellular suspension produced according to step (b) with a filter size between about 50 μ m and about 200 μ m to remove large cellular conglomerates.

28. (New) A cell suspension produced according a method comprising the steps of:

(a) subjecting a tissue sample including cells suitable for grafting to a patient, to a heated enzyme solution capable of dissociating cellular stratum in the tissue sample, the heated enzyme solution comprising a calcium and magnesium ion free phosphate buffered saline and between about 5% and about 0.1% trypsin per volume of solution, the heated enzyme solution being heated to a temperature between about 30 degrees Celsius and about 37 degrees Celsius;

(b) removing the tissue sample from the dissociating means used in step (a) and harvesting in the presence of a nutrient solution cells from the tissue sample, cells suitable for grafting on to a patient wherein the nutrient solution comprises physiological saline and is (i) free of xenogenic serum, (ii) capable of maintaining the viability of the cells until applied to a patient and (iii) is suitable for direct application to a region on a patient undergoing tissue grafting; and

(c) filtering the cellular suspension produced according to step (b) with a filter size between about 75 μ m and about 150 μ m to remove large cellular conglomerates.